

**ABSTRACT**

A mobile station for a TD-CDMA cellular system includes means for maintaining a list of intracell interferers to the mobile station. Further means (14, 16) detect intercell interferers to the mobile station by using handover related information available in the mobile station. Detected intercell interferers that fulfil a predetermined selection criterion are added to the list of interferers. Means (12) are provided for performing interference cancellation for all interferers, both intracell and intercell, in the list with a joint detection algorithm.

(Fig. 2)